Active Directory Homelab (Windows Server)

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Overview

This project showcases my hands-on experience setting up an Active Directory (AD) environment in a VMware homelab. I built and configured a Windows Server domain controller, automated administration with PowerShell, and applied security best practices.

Key Skills Demonstrated

• Windows Server installation and promotion to Domain Controller (AD DS)

• DNS configuration and domain networking

• Organizational Unit (OU) hierarchy design

• Automated user and group creation with PowerShell

• Group Policy Objects (GPOs) for password complexity & security

• Backup and documentation of domain policies

Screenshot Highlights

The following screenshots highlight key steps of the AD homelab setup.

• VM settings summary

• Static IP configuration

• Active Directory installation

• ADUC console open

• OU structure design

• PowerShell automation of OUs

• Password Policy via GPO

• Backup and reporting confirmation

Conclusion

This homelab demonstrates my ability to design, configure, and document an enterprise-grade Active Directory environment. The project highlights both technical skills and professional documentation practices.